

Hospital Tax Status and Carotid Artery Stent Utilization in US Hospitals Performing Carotid Revascularization

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Objective

It has been suggested that carotid artery stenting (CAS) is less effective and more expensive than carotid endarterectomy (CEA). We sought to identify the association of hospital tax status on CAS vs. CEA utilization for patients admitted to US hospitals for carotid revascularization.

Methods

Using the Nationwide Inpatient Sample admissions for carotid artery occlusive disease from 2008-2011, we identified hospitals that performed at least 20 carotid revascularization procedures annually with at least one being a carotid artery stent. We used a multilevel multivariable logistic regression; controlling for patient demographics, comorbidities and other hospital characteristics, to assess the effect of hospital tax status on CAS use.

Results

Across 723 hospitals 66,731 carotid revascularization admissions were identified. Approximately one of five (18.7%) revascularization admissions included in the analysis received a CAS. The average annual rate of stenting among hospitals performing revascularization was 17.7 per 100 procedures (Median 12.5, Interquartile Range 5.4–26.7 per 100 procedures). The average carotid artery stenting rate among non-profit hospitals was 17.5 per 100 procedures (95% CI 16.2–18.9) vs. 24.2 per 100 procedures (95% CI 20.2–28.2) in for-profit hospitals. After adjusting for patient demographics, comorbidities and other hospital characteristics; for-profit hospital designation was associated with a greater odds (Adjusted Odds Ratio 1.55, 95% CI 1.14–2.11) of CAS for patients undergoing carotid revascularization.

Interpretation

For-profit hospital tax status is associated with a higher rate of CAS compared to non-profit hospitals. Further research is needed to understand the individual and system level factors driving this difference.